

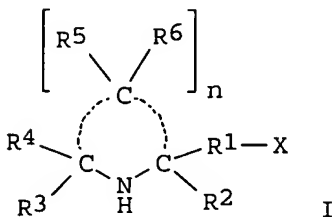
STN 4-14-05

10/672,062

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L1 ANSWER 1 OF 6 CAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 2004:310207 CAPLUS
 DOCUMENT NUMBER: 140:322996
 TITLE: Hindered amine-bonded **light-resistant colorants** and compositions therewith
 INVENTOR(S): Jong, Yon-Kyon; Yu, Sun-Min
 PATENT ASSIGNEE(S): Samsung Electronics Co., Ltd., S. Korea
 SOURCE: Jpn. Kokai Tokkyo Koho, 18 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|-------------------|----------|-----------------|------------|
| JP 2004115812 | A2 | 20040415 | JP 2003-338029 | 20030929 |
| US 2004129178 | A1 | 20040708 | US 2003-672062 | 20030929 |
| PRIORITY APPLN. INFO.: | | | KR 2002-59138 | A 20020928 |
| OTHER SOURCE(S): | MARPAT 140:322996 | | | |
| GI | | | | |



AB Colorants, i.e., pigments or dyes, chemical bonded with piperidine-type hindered amines I [R1 = C1-20 (hetero)alkylene, C6-20 arylene, C6-30 heteroarylene; R2-R4 = H, C1-4 (hetero)alkyl; R5, R6 = H, C1-20 (hetero)alkyl, C6-20 (hetero)aryl; X = halo, OH, amino, carboxyl, etc.; n = 1-5], and their compns. with water and/or organic solvents are claimed. The compns. may further contain dispersants, viscosity modifiers, surfactants, wetting agents, permeation agents, pH modifiers, and/or metal oxides. Thus, C.I. Direct Black 5128 was reacted with 2-(γ-chloropropyl)-2,4,6,6-tetramethylpiperidine to give II, 4.0 g of which was mixed with water 78.0, iso-PrOH 3.0, ethylene glycol 10.0, and glycerin 5.0 g, and filtered to give an ink showing no precipitation after 2-mo storage at 60°.

L1 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 2003:607519 CAPLUS
 DOCUMENT NUMBER: 139:165986
 TITLE: Colorant particle dispersions for inks and ink-jet printing method
 INVENTOR(S): Ishizuka, Takahiro
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 22 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent

10/672,062

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|------------|
| JP 2003221521 | A2 | 20030808 | JP 2002-21652 | 20020130 |
| US 2004024085 | A1 | 20040205 | US 2003-352973 | 20030129 |
| PRIORITY APPLN. INFO.: | | | JP 2002-21652 | A 20020130 |
| | | | JP 2002-22012 | A 20020130 |
| | | | JP 2002-22493 | A 20020130 |

AB Title dispersions comprise colorant fine particles containing oil-soluble polymers and phthalocyanine colorants with oxidation potential (vs SCE) >1.0 V dispersed in aqueous media. Thus, 1.5 parts iso-Bu methacrylate-Bu acrylate copolymer having mercaptosuccinic acid and 0.5 parts phthalocyanine colorant were dispersed in THF and tert-butanol and neutralized with sodium hydroxide to give 16%-solids colorant particle dispersion with volume average particle diameter 23 nm, 50 parts of which was mixed with diethylene glycol 8, tetraethylene glycol monobutyl ether 2, and glycerin 5, diethanolamine 1 parts, 1 g polyethylene glycol 2-butyloctanoate, and water, and used for ink-jet printing, showing oxidation potential 1.16 V, good printability, water, light, and ozone resistance, and dark heat solidity.

L1 ANSWER 3 OF 6 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2002:129246 CAPLUS

DOCUMENT NUMBER: 136:169122

TITLE: Colorant aqueous emulsions with good dispersibility, their water- and light-resistant jet printing inks, and printing method using them

INVENTOR(S): Ishizuka, Takahiro

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 33 pp.

CODEN: JKXXAF

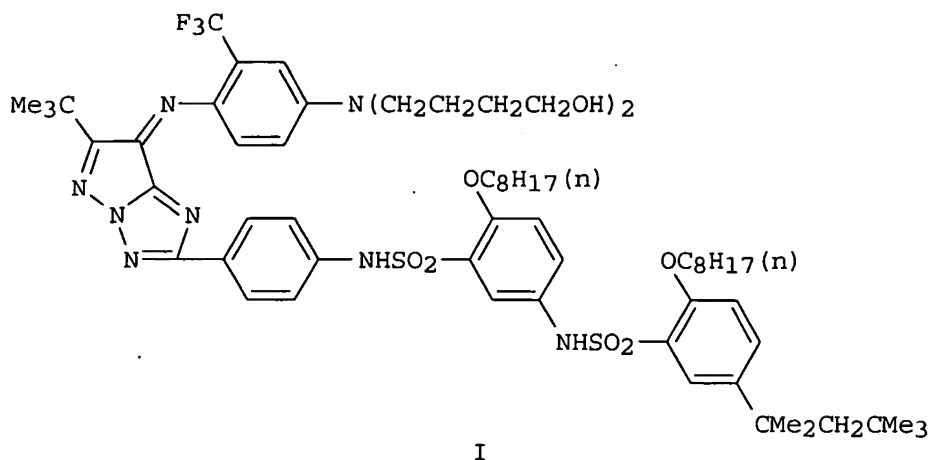
DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|----------|
| JP 2002053766 | A2 | 20020219 | JP 2000-241638 | 20000809 |
| PRIORITY APPLN. INFO.: | | | JP 2000-241638 | 20000809 |
| OTHER SOURCE(S): | | | | |
| GI | | | | |



AB The emulsions comprise oil-soluble dyes and vinyl polymers having functional groups to form colorants by oxidation coupling with aromatic primary amines. Thus, an aqueous emulsion containing Bu methacrylate-2-carboxyethyl acrylate-acrylamide chloropyrazolotriazole derivative copolymer Na salt and an azomethine dye (I) showed particle size 92 nm and stable dispersion.

L1 ANSWER 4 OF 6 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1998:799871 CAPLUS

DOCUMENT NUMBER: 130:96927

TITLE: Lightproofing agents, lightproofing method therewith,
light-resistant colorants,
and formation of light-resistant images therefrom

INVENTOR(S) : Matsumura, Kazuyuki; Kamei, Masanao; Yamatani, Masaaki

PATENT ASSIGNEE(S): Shin-Etsu Chemical Industry Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|----------|
| JP 10330664 | A2 | 19981215 | JP 1997-152808 | 19970527 |
| PRIORITY APPLN. INFO.: | | | JP 1997-152808 | 19970527 |

PRIORITY APPLN. INFO.: JP 1997-152808 19970527

AB Title lightproofing agents are S:C bond-containing compds. An ink of a red pigment 3, thiourea 5, glycerol 10, iso-PrOH 10, N-methyl-2-pyrrolidone 10, and water 62 parts was jet-printed on a sheet resulting highly light-resistant prints.

L1 ANSWER 5 OF 6 CAPLUS . COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1997:449875 CAPLUS

DOCUMENT NUMBER: 127:82916

TITLE: Colored hot melt ink jet vehicle

INVENTOR(S): Evans, Philippa Catherine; Hall, Stephen Anthony;
Williams, Kevin George

PATENT ASSIGNEE(S) : Coates Brothers Plc, UK

SOURCE: Brit. UK Pat. Appl., 18 pp.

CODEN: BAXXDU

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

10/672,062

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|-----------------|----------|
| GB 2305928 | A1 | 19970423 | GB 1995-20470 | 19951006 |
| WO 9713816 | A1 | 19970417 | WO 1996-GB2446 | 19961007 |
| W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG | | | | |
| AU 9671403 | A1 | 19970430 | AU 1996-71403 | 19961007 |
| EP 853650 | A1 | 19980722 | EP 1996-932727 | 19961007 |
| EP 853650 | B1 | 19990707 | | |
| R: DE, FR, GB, IT | | | | |

PRIORITY APPLN. INFO.: GB 1995-20470 A 19951006
WO 1996-GB2446 W 19961007

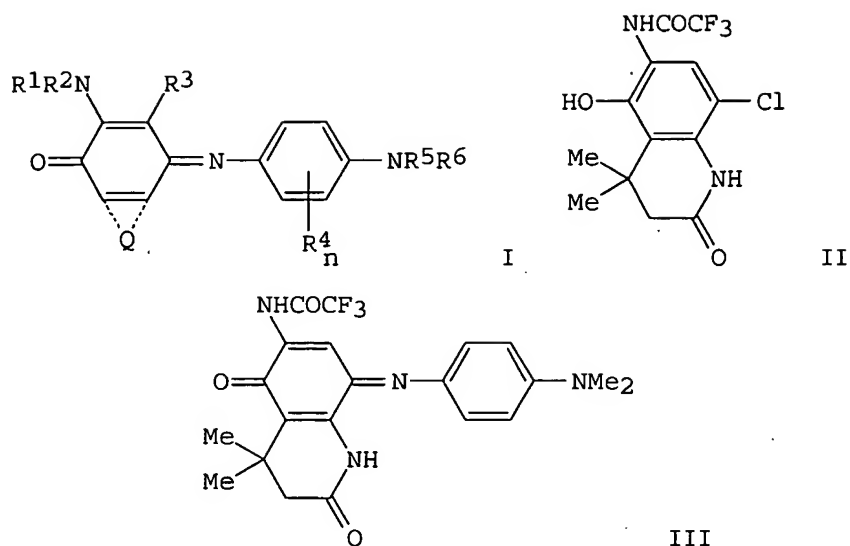
AB A colored material suitable for use in a hot melt ink comprises a oligomeric hot melt ink jet vehicle formed of mols. having a backbone and ≥ 1 pendent side-chain dyestuff. The material is preferably obtainable as the reaction product of an aliphatic or aromatic mono- or di-isocyanate and a hydroxyl group functional dye component, and optionally one or more other suitable material including mono- and dihydric alcs., primary and secondary monoamines, functional amides, hydroxyl functional amines and hydroxyl containing components having a terminal unsatd. bond. A red colorant having a softening point 88° was prepared by the urethane reaction of octadecyl isocyanate with Reactint Red X 52 dye.

L1 ANSWER 6 OF 6 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1989:480113 CAPLUS
DOCUMENT NUMBER: 111:80113
TITLE: Colorants for sublimation thermal-transfer recording
INVENTOR(S): Nakamine, Takeshi; Ono, Michio; Kubodera, Seiichi
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 11 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|------------|
| JP 01020194 | A2 | 19890124 | JP 1987-176625 | 19870715 |
| JP 06088462 | B4 | 19941109 | | |
| US 4983493 | A | 19910108 | US 1988-218789 | 19880714 |
| PRIORITY APPLN. INFO.: | | | JP 1987-176625 | A 19870715 |

GI



AB The title colorants of the structure I ($Q = \geq 5$ -membered heterocycle containing ≥ 1 N; R_1 = acyl, sulfonyl; R_2 = H, C1-6 aliphatic group; R_3 = H, halo, alkoxy, C1-6 aliphatic group; R_4 = halo, alkoxy, C1-6 aliphatic group; R_3 may form a ring with R_1 , R_2 , or R_4 ; R_5 , R_6 = H, C1-6 aliphatic group, aromatic group; R_5 and R_6 together may form a ring; R_5 and/or R_6 may form a ring with R_4 ; $n = 0-4$) are prepared. Sublimation-transfer recording sheets containing the colorants gave clear images in printing by using a thermal head. Thus, the amine II and p-dimethylaminoaniline were reacted to give the colorant III (λ_{\max} 616 nm). Then an ink containing III was applied on a PET film to give a thermal-transfer recording sheet, which gave clear heat- and light-resistant printed images in a thermal recording process.

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FILE 'CAPLUS' ENTERED AT 16:03:11 ON 14 APR 2005

L1 6 S LIGHT RESISTANT COLORANT?

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